

## Chronic Abdominal Pain: Review Questions

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### QUESTIONS

Choose the single best answer for each question.

- 1. A 56-year-old man presents for evaluation of long-standing abdominal pain. He reports a 2-year history of epigastric pain with radiation to the back made worse by eating and improved with fasting. His stools are occasionally loose. The patient is a recovered alcoholic who has been abstinent for 7 years. He has lost 10 lb in the last year. Another physician diagnosed him with irritable bowel syndrome (IBS) and recommended a high-fiber diet, which did not help. His examination reveals a thin but otherwise normal-appearing man without focal abnormalities. Which of the following tests would be the most helpful in evaluating this patient?**

  - Computed tomography (CT) scan of the abdomen and pelvis
  - Colonoscopy
  - Esophagogastroduodenoscopy (EGD)
  - 72-Hour fecal fat collection
- 2. What is this patient's most likely diagnosis?**

  - Chronic gastritis
  - Chronic mesenteric ischemia
  - IBS
  - Major depression
- 3. Which of the following is the best first-line therapy for this patient?**

  - Amitriptyline
  - Combination acetaminophen/codeine tablets
  - Hyoscyamine
  - Psyllium fiber supplementation
- 4. A 45-year-old woman with scleroderma presents for evaluation of chronic nausea, vomiting, and abdominal pain. She describes dull, achy mid-abdominal pain after eating that typically lasts for hours. Symptoms are often relieved by vomiting. She also describes intermittent substernal pain, which is made worse by vomiting, and chronic diarrhea for the past several months of unclear cause. Her physical examination reveals a thin woman with typical scleroderma facies and extremity findings but is otherwise unremarkable. Blood tests reveal a decreased serum albumin level and a macrocytic anemia. Which of the following is the most likely cause of this patient's mid-abdominal pain?**

  - Bacterial overgrowth
  - Biliary colic
  - Gastroesophageal reflux disease (GERD)
  - Gastroparesis
- 5. A 28-year-old woman presents with a 3-month history of chronic right lower abdominal pain. The pain occurs daily without clear precipitants and is associated with bloating that spontaneously resolves. The patient occasionally has fevers that she cannot explain, but they typically resolve without treatment. She has 3 to 4 loose stools per day that**

**Questions 2 and 3 refer to the following case.**

A 26-year-old woman presents for a second opinion regarding her abdominal pain. She has a lifelong history of constipation (2 bowel movements per week) and bloating, and she often feels that her bowel movements are incomplete. Her pain is diffuse, typically worsens after eating fatty foods or eating in restaurants, and improves after defecation. Her weight, appetite, and energy level are all stable, and she has a normal sleep pattern. She has never had blood or mucous in her stools. A prior physician performed an EGD, colonoscopy, and small bowel radiography, all of which were normal. Her physical examination is unremarkable.

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contain mucus but not blood. She has lost 10 lb in the last 3 months despite a good oral intake. She also reports occasional eye pain with light sensitivity. On examination, her abdomen is focally tender in the right lower quadrant without peritoneal signs or palpable masses; the remaining examination is unremarkable. What is the most likely underlying diagnosis in this patient?

- (A) Chronic appendicitis
- (B) Crohn's disease
- (C) IBS
- (D) Systemic lupus erythematosus (SLE)

#### ANSWERS AND EXPLANATIONS

1. (A) **CT scan of the abdomen and pelvis.** This patient's pain is suspicious for chronic pancreatitis, and his pancreas should be evaluated. In addition, patients with chronic pancreatitis from any cause are at increased risk for developing pancreatic adenocarcinoma. A CT scan can be useful to evaluate the pancreas for changes consistent with chronic pancreatitis or a mass lesion. He may have steatorrhea from pancreatic exocrine failure, which would explain his loose stools, but a 72-hour stool collection to check for fecal fat would be more valuable once a diagnosis of chronic pancreatitis is established. Endoscopy and colonoscopy could be considered if his CT scan results are normal, as he could have peptic ulcer disease or colitis.
2. (C) **IBS.** The patient meets diagnostic criteria for IBS, a disorder characterized by at least 12 weeks of chronic abdominal pain and alterations in bowel habits (including diarrhea or constipation). Patients often complain of bloating, experience exacerbations with diet changes, have sensations of incomplete evacuation, and usually have negative results on diagnostic testing. Chronic mesenteric ischemia would likely present with weight loss due to food avoidance caused by pain. Gastritis is often painless and, if pain occurs, it would be unlikely to improve with defecation. While the patient could have major depression, her stable appetite, weight, and energy level all argue against a depressive episode.
3. (D) **Psyllium fiber supplementation.** Psyllium fiber supplementation is the best first-line option. Amitriptyline may minimize visceral hypersensitivity, a symptom that patients with IBS may have. Hyoscyamine can function as an antispasmodic and can be taken either as a scheduled daily dose or on an as-needed basis for focal episodes of pain. Psyllium fiber supplementation is first-line therapy for patients with constipation-predominant IBS. Fiber is safe, inexpensive, available without a prescription, and highly effective. Fiber traps water in the intestine, thus softening the stool and improving constipation. Fiber also helps promote bowel regularity. Although acetaminophen may be of some value for pain, the addition of a narcotic to the formulation would only slow bowel transit and likely worsen this patient's constipation.
4. (D) **Gastroparesis.** Scleroderma is a disorder with a variety of gastrointestinal complications, and gastroparesis is common in this setting. It often manifests as dull mid-abdominal pain after meals, as ingested food sits for protracted periods of time as the stomach fails to empty. Patients often report symptomatic improvement after vomiting and will often recognize that their food appears undigested. GERD likely accounts for this patient's substernal pain, as patients with scleroderma often have esophageal dysmotility and a patulous lower esophageal sphincter, leading to chronic esophageal acid exposure, often with severe esophagitis. Esophageal acid exposure is likely only worsened by vomiting due to gastroparesis. Although many patients with scleroderma have constipation, diarrhea can develop due to bacterial overgrowth resulting from poor motility and proximal migration of colonic flora. Bacterial overgrowth can lead to malabsorption and vitamin deficiencies and is treatable by courses of rotating antibiotics. Although the patient could have biliary colic, her pain would not be expected to improve with vomiting if this were the case.
5. (B) **Crohn's disease.** This patient's history and physical examination are most consistent with Crohn's disease. Crohn's disease is an inflammatory condition that can occur anywhere in the gastrointestinal tract but most commonly affects the small bowel. This patient's right lower quadrant abdominal pains are suggestive of involvement of the terminal ileum, an area frequently affected. Involved intestine can become strictured (causing bloating secondary to partial obstruction), develop abscesses, or form fistulas (eg, enterocutaneous, enterovaginal, enteroenteric), which are often associated with fevers as well. Her ocular symptoms likely represent iritis, which is considered an extraintestinal manifestation of Crohn's disease. Chronic appendicitis would be unlikely to be associated with iritis but could cause many of this patient's symptoms. SLE could cause mesenteric vasculitis, which could mimic Crohn's disease but would likely present with more diffuse abdominal pain as opposed to focal right lower quadrant pain. IBS is unlikely given her alarm symptoms (ie, fever, weight loss).